**UNITED STATES DEPARTMENT OF COMMERCE**
**National Oceanic and Atmospheric Administration**
NATIONAL MARINE FISHERIES SERVICE
Northwest Region
7600 Sand Point Way N.E., Bldg. 1
Seattle, WA 98115

July 23, 2004

Refer to NOAA Fisheries No.:
F/NWR/2004/00722

ATTN: Greg M. Yuncevich
Field Manager
Bureau of Land Management
House 1, Butte Drive - Route 3, Box 181
Cottonwood, Idaho 83522-9498

Re: Endangered Species Act Interagency Consultation and Magnuson-Stevens Fishery Conservation and Management Act Essential Fish Habitat Consultation for the Lower Lucile Recreation Site Development Project, Lower Salmon River Subbasin, 17060209, Idaho County, Idaho.

Dear Mr. Yuncevich:

The enclosed document contains a biological opinion (Opinion) prepared by NOAA's National Marine Fisheries Service (NOAA Fisheries) pursuant to section 7(a)(2) of the Endangered Species Act (ESA) on the effects of the Lower Lucile Recreation Site Development Project. In this Opinion, NOAA Fisheries concludes that the proposed action is not likely to jeopardize the continued existence of Snake River fall chinook salmon considered in this biological opinion, or result in adverse modification of critical habitat. The Opinion also includes an incidental take statement with terms and conditions necessary to minimize the impact of taking that is reasonably likely to be caused by this action. Take from actions by the action agency and applicant, if any, that meet these terms and conditions will be exempt from the ESA take prohibition.

This document also includes the results of our consultation on the action's likely effects on essential fish habitats (EFH) pursuant to section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA), and includes conservation recommendations to avoid, minimize, or otherwise offset potential adverse effects to EFH. Section 305(b)(4)(B) of the MSA requires Federal agencies to provide a detailed written response to NOAA Fisheries within 30-days after receiving these recommendations. If the response is inconsistent with the recommendations, the Bureau of Land Management (BLM) must explain why the recommendations will not be followed, including the justification for any disagreements over the effects of the action and the recommendations.

Also, based on the best available information and successful implementation of the mitigation measures described in the biological assessment, NOAA Fisheries has determined the subject action would have no more than a negligible potential to adversely affect listed Snake River steelhead of spring/summer chinook salmon, or their habitat. NOAA Fisheries concurs with the BLM's finding that the subject action is "not likely to adversely affect" Snake River steelhead, or Snake River spring/summer chinook salmon or its designated critical habitat.

If you have questions regarding this consultation, please contact Mr. Kevin Traylor or Mr. Dale Brege of my staff in the North Idaho Habitat Office at (208) 983-3859.

Sincerely,

for Michael R Crouse

D. Robert Lohn
Regional Administrator

cc: J. Foss - USFWS
R. Hennekey - IDFG
I. Jones - NPT
C. Johnson - BLM

# Endangered Species Act Section 7 Consultation Biological Opinion
# and
# Magnuson-Stevens Fishery Conservation and Management Act
# Essential Fish Habitat Consultation

Lower Lucile Recreation Site Development Project
Snake River Fall Chinook Salmon
Lower Salmon River Subbasin
17060209
Idaho County, Idaho

Lead Action Agency: Bureau of Land Management

Consultation Conducted By: NOAA's National Marine Fisheries Service
Northwest Region

Date Issued: July 23, 2004

Issued by: Michael R Crouse
for D. Robert Lohn
Regional Administrator

NMFS Tracking No. F/NWR/2004/00722

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# 1. INTRODUCTION

The Endangered Species Act (ESA) of 1973 (16 USC 1531-1544), as amended, established a national program for conserving threatened and endangered species of fish, wildlife, plants, and the habitat on which they depend. Section 7(a)(2) of the ESA requires Federal agencies to consult with NOAA's National Marine Fisheries Service (NOAA Fisheries) and U.S. Fish and Wildlife Service (together "Services"), as appropriate, to ensure that their actions are not likely to jeopardize the continued existence of endangered or threatened species or adversely modify or destroy their designated critical habitats. This biological opinion (Opinion) is the product of an interagency consultation pursuant to section 7(a)(2) of the ESA and implementing regulations 50 CFR 402.

The analysis also fulfills the Essential Fish Habitat (EFH) requirements under the Magnuson-Stevens Fishery Conservation and Management Act (MSA). The MSA, as amended by the Sustainable Fisheries Act of 1996 (Public Law 104-267), established procedures designed to identify, conserve, and enhance EFH for those species regulated under a Federal fisheries management plan. Federal agencies must consult with NOAA Fisheries on all actions, or proposed actions, authorized, funded, or undertaken by the agency, that may adversely affect EFH (section 305(b)(2)).

The Cottonwood Resource Area of the Bureau of Land Management (BLM) proposes the Lower Lucile Recreation Site Development Project (Lucile Recreation Project). The recreational development will encompass 4 acres along the Lower Salmon River, near Lucile, Idaho. The purpose of the Lucile Recreation Project is to improve the existing recreation site, reduce conflicts between user groups, and improve visitor safety. The BLM is proposing the action according to its authority under the Federal Land Policy and Management Act. The administrative record for this consultation is on file at the Idaho State Habitat Office in Boise, Idaho.

## 1.1 Background and Consultation History

The BLM submitted a draft biological assessment (BA) for the Lucile Recreation Project to NOAA Fisheries on June 3, 2004. The BLM amended the BA through two conference calls with NOAA Fisheries on June 4 and 15, 2004. The North-Central Idaho Level 1 Team reached closure on the project through a conference call on June 23, 2004. NOAA Fisheries received a final BA and EFH assessment for the project on June 28, 2004, and formal consultation was initiated at that time. On July 6, 2004, NOAA Fisheries contacted the BLM regarding construction work windows, which were not included in the final BA. The BLM electronically mailed an addendum to NOAA Fisheries to include the necessary time frames.

The BLM determined that the proposed action was likely to adversely affect Snake River fall chinook salmon and their designated critical habitat, not likely to adversely affect (NLAA) Snake River spring/summer chinook salmon and steelhead, no effect for Snake River sockeye, and may adversely affect chinook salmon EFH. The rationale for the NLAA determination for Snake River spring/summer chinook salmon and steelhead was based on the lack of adult spawning and the limited rearing habitat in the mainstem Lower Salmon River for these species. Sockeye salmon utilize the mainstem Salmon River only as an upstream and downstream passage corridor. NOAA Fisheries concurs with the NLAA for Snake River spring/summer chinook salmon and steelhead; therefore, no further discussion for these two species is included in this Opinion.

The Lucile Recreation Project would likely affect tribal trust resources. Because the action is likely to affect tribal trust resources, NOAA Fisheries contacted the Nez Perce Tribe (Tribe) pursuant to the Secretarial Order (June 5, 1997). A copy of the draft Opinion was electronically mailed to the Tribe for review and comments on July 12, 2004. The Tribe sent comments back to NOAA Fisheries concerning the project on July 19, 2004. In general, the Tribe thanked NOAA Fisheries for giving them the opportunity to comment, but offered no substantive comments on the project.

## 1.2 Proposed Action

Proposed actions are defined in the Services' consultation regulations (50 CFR 402.02) as "all activities or programs of any kind authorized, funded, or carried out, in whole or in part, by Federal agencies in the United States or upon the high seas." Additionally, U.S. Code (16 U.S.C. 1855(b)(2)) further defines a Federal action as "any action authorized, funded, or undertaken or proposed to be authorized, funded, or undertaken by a Federal agency." Because the BLM proposes to fund the action that may affect listed resources, it must consult under ESA section 7(a)(2) and MSA section 305(b)(2).

The BLM proposes to develop an existing recreation site located on the east bank of the Lower Salmon River at river mile (RM) 77.2, near Lucile, Idaho. The new recreational facilities will include: (1) A designated parking area to accommodate 75 to 100 vehicles and an overflow parking area; (2) construction of a two-lane boat ramp and a boat drying and staging area; (3) reconstruction of a highway access road; (4) day-use area picnic tables; (5) vault toilets; (6) a well and pumphouse; (7) a drilled well to supply water for a water hydrant, drinking fountain, and irrigation; (8) landscaping; and (9) an informational kiosk.

Site construction is to be conducted in two phases. The first phase will include reconstruction of the access road, construction of the parking areas, installation of vault toilets, construction of the

boat ramp and boat drying area, and the kiosk. Paving of the road and part of the main parking area, water development, and landscaping will occur during the second phase of the project scheduled to occur at a later date when funding is available.

A number of mitigation measures were incorporated into the project proposal to reduce project effects on fish habitat. They include: (1) A work window of September 1 through December 31 during low flow and low water conditions; (2) runoff from the access road and parking areas will drain into retention basins, or be restricted by natural topography from reaching the Salmon River; (3) gates or rock barriers to restrict vehicle access from sensitive areas; (4) sediment control measures, including mulching, sediment fences and traps, and straw bales; (5) informational signs and posters providing species identification and to inform fisherman that fishing for ESA-listed species is not authorized; (6) seeding, fertilizing, and mulching to establish desirable plant species in disturbed areas; (7) ground-based application for noxious weed control; (8) protection of any shallow water redds found within the vicinity of the project area; (9) no fueling, fuel storage, or maintenance of equipment within 100 feet of the Salmon River; and (10) all construction activity would be curtailed during heavy precipitation events.

### 1.3 Description of the Action Area

An action area is defined by the Services' regulations (50 CFR Part 402) as "all areas to be affected directly or indirectly by the Federal action and not merely the immediate area involved in the action." The action area affected by the proposed action starts at the project location on the Lower Salmon River at RM 72.2 and includes 4 acres of riparian habitat conservation area (RHCA) habitat, in addition to aquatic habitat extending 100 yards upstream and 100 yards downstream from the proposed boat ramp. The fourth field hydrologic code encompassing the action area is 17060209. The action area serves as spawning, rearing, and migratory habitat for chinook salmon EFH and the Snake River fall chinook salmon Evolutionarily Significant Unit (ESU) listed in Table 1.

The Lucile Recreation Project would occur within designated critical habitat for Snake River fall chinook salmon. Freshwater critical habitat can include all waterways, substrates, and adjacent riparian areas[1] below longstanding, natural impassable barriers (i.e., natural waterfalls in existence for at least several hundred years) and dams that block access to former habitat (see citations in Table 1).

[1] Riparian areas adjacent to a stream provide the following functions: shade, sediment delivery/filtering, nutrient or chemical regulation, streambank stability, and input of large woody debris and fine organic matter.

**Table 1. References for additional background on listing status, critical habitat designation, protective regulations, and life history for the ESA-listed and candidate species considered in this consultation.**

| Species ESU | Status | Critical Habitat Designation | Protective Regulations | Life History |
|---|---|---|---|---|
| Snake River fall chinook salmon (*Ocorhynchus tshawytscha*) | Threatened; April 22, 1992; 57 FR 14653[2] | December 28, 1993, 58 FR 68543 | July 10, 2000; 65 FR 42422 | Waples *et al.* 1991; Healey 1991 |

## 2. ENDANGERED SPECIES ACT

The ESA established a national program for conserving threatened and endangered species of fish, wildlife, plants, and the habitat on which they depend. Section 7(a)(2) of the ESA requires Federal agencies to consult with U.S. Fish and Wildlife Service and NOAA's National Marine Fisheries Service (NOAA Fisheries), as appropriate, to ensure that their actions are not likely to jeopardize the continued existence of endangered or threatened species or adversely modify or destroy their critical habitats. Section 7(b)(4) requires the provision of an incidental take statement specifying the impact of any incidental taking and specifying reasonable and prudent measures to minimize such impacts.

### 2.1 Biological Opinion

This Opinion presents NOAA Fisheries' review of the status of each evolutionarily significant unit (ESU)[3] considered in this consultation and critical habitat, the environmental baseline for the action area, all the effects of the action as proposed, and cumulative effects. NOAA Fisheries analyzes those combined factors to conclude whether the proposed action is likely to appreciably reduce the likelihood of both the survival and recovery of the affected ESUs, or is likely to destroy or adversely modify critical habitat. See, 50 CFR 402.14(g). If the action under consultation is likely to jeopardize an ESU, or destroy or adversely modify critical habitat,

[2] Also see, June 3, 1992, 57 FR 23458, correcting the original listing decision by refining ESU ranges.

[3] 'ESU' means an anadromous salmon or steelhead population that is either listed or being considered for listing under the ESA, is substantially isolated reproductively from conspecific populations, and represents an important component of the evolutionary legacy of the species (Waples 1991). An ESU may include portions or combinations of populations more commonly defined as stocks within or across regions.

NOAA Fisheries must identify any reasonable and prudent alternatives for the action that avoid jeopardy or destruction or adverse modification of critical habitat and meet other regulatory requirements (50 CFR 402.02).

## 2.2 Status of Snake River Fall Chinook Salmon

This section defines range-wide biological requirements of each ESU, and reviews the status of the ESUs relative to those requirements. The present risk faced by each ESU informs NOAA Fisheries' determination of whether additional risk will 'appreciably reduce' the likelihood that an ESU will survive and recover in the wild. The greater the present risk, the more likely any additional risk resulting from the proposed action's effects on the population size, productivity (growth rate), distribution, or genetic diversity of the ESU will be an appreciable reduction (McElhaney et al. 2000).

Columbia River salmon and steelhead populations have experienced a long-term decline in numbers since the 1870s (NRC 1996). Population declines have been caused by a variety of factors, including fishing, hydropower development, ocean conditions, and habitat that has been degraded or lost through agriculture, ranching, mining, timber harvest, and urbanization (NRC 1996). Pre-development estimates of Columbia River salmon and steelhead range from 7.5 million (Chapman 1986) to 16 million fish (NPPC 1986). Run sizes in the Columbia River estimated from annual counts at the Bonneville Dam from 1998-2003, averaged around 603,142 for adult chinook salmon and 358,873 for steelhead (USACE 2004). Unusually large numbers of adult fish have been observed passing through Snake River dams since 2000. These large returns are thought to be largely a result of cyclic oceanic and climatic conditions favorable to anadromous fish (Marmorek and Peters 1998). It can not yet be determined if the recent population increases represent a shift in the population growth rates (due to a corresponding shift in climatic conditions), or if the change is a temporary phenomenon. Factors other than ocean conditions, such as downstream passage conditions for smolts, predation, fishing pressure, and habitat conditions in rearing areas also vary from year to year, and may offset gains from favorable ocean conditions in some years, or work synergistically in others. For detailed information on Snake River fall chinook salmon, see NMFS (1991) and June 27, 1991, 56 FR 29542.

Adult Snake River fall chinook salmon enter the Columbia River in July and migrate into the Snake River from August through October. Fall chinook salmon generally spawn from October through November, and fry emerge from March through April. Downstream migration generally begins within several weeks of emergence (Becker 1970, Allen and Meekin 1973), and juveniles rear in backwaters and shallow water areas through mid-summer before smolting and migrating to the ocean; thus, they exhibit an ocean-type juvenile history. Once in the ocean, they spend 1 to

4 years (though usually, 3 years) before beginning their spawning migration. Fall returns in the Snake River system are typically dominated by 4-year old fish. Natural fall chinook salmon spawning occurs primarily in the Snake River below Hells Canyon Dam and the lower reaches of the Clearwater, Grand Ronde, Salmon, and Tucannon Rivers.

The BLM and the Tribe currently cooperate in conducting aerial fall chinook salmon redd surveys in the Lower Salmon River. From 1992 to 2003, fall chinook redd counts have ranged from 0 to 31 per year. During 2003, a total of 18 redds were counted in the Salmon River, but none were counted in the immediate vicinity of the proposed Lucile Recreation Project (Table 2).

**Table 2. Fall chinook redd count surveys conducted in the Salmon River in 2003**

| River Mile | Location | New Redds Counted by Flight Date | | | |
|---|---|---|---|---|---|
| | | 10/29/03 | 11/13/03 | 11/26/03 | **Totals** |
| 4.0 | Powerline crossing near Slide | 0 | 0 | 1 | 1 |
| 5.5 | Below Flynn Creek | 1 | 0 | 0 | 1 |
| 5.6 | Above Flynn Creek | 0 | 0 | 1 | 1 |
| 20.3 | The Oxbow | 0 | 0 | 1 | 1 |
| 20.6 | The Oxbow | 0 | 0 | 2 | 2 |
| 30.9 | Near Bingman Ridge | 3 | 1 | 1 | 5 |
| 31.1 | Near Bingman Ridge | 0 | 0 | 1 | 1 |
| 64.0 | Horseshoe Bend (Twin Bridges) | 2 | 0 | 0 | 2 |
| 68.5 | Blackhawk Bar (Upper End) | 0 | 0 | 2 | 2 |
| 91.0 | Between Berg and Cat Creeks | 0 | 0 | 1 | 1 |
| 100.7 | Near Howard Ranch (Elkhorn Creek) | 0 | 0 | 1 | 1 |
| **Totals** | | **6** | **1** | **11** | **18** |

No reliable estimates of historical abundance are available. Because of their dependence on mainstem habitat for spawning, fall chinook salmon probably have been affected by the development of irrigation and hydroelectric projects to a greater extent than any other species

of salmon. It has been estimated that the mean number of adult Snake River fall chinook salmon declined from 72,000 in the 1930s and 1940s to 29,000 during the 1950s. Despite this decline, the Snake River remained the most important natural production area for fall chinook salmon in the entire Columbia River Basin (CRB) through the 1950s. The number of spawning adults counted at the uppermost Snake River mainstem dams averaged 12,720 from 1964 to 1968, 3,416 from 1969 to 1974, and 610 from 1975 to 1980 (Waples et al. 1991).
Counts of natural-origin adult fish continued to decline through the 1980s, reaching a low of 78 individuals in 1990. Since then, NMFS (1999a) noted increases in the Lower Granite Dam counts of hatchery and natural-origin fish in the mid-1990s, and an upward trend in returns (the 2001 and 2002 counts over Lower Granite Dam exceeded 8,700 and 12,300 adult fall chinook, respectively). The 1997 through 2001 escapements were the highest on record since the count of 1,000 in 1975. Wild chinook returns and hatchery returns from increased production in the Lyons Ferry Hatchery Snake River egg bank stock have provided the bulk of the increase in returns. Returns classified as natural-origin exceeded 2,600 in 2001. The 1997-2001 geometric mean natural-origin count over Lower Granite Dam was 871 fish. The largest increase in fall chinook returns to the Snake River spawning area was from the Lyons Ferry Snake River stock component.

NOAA Fisheries uses lambda ($\lambda$) to represent the long-term population growth rate. In order to achieve interim recovery numbers, $\lambda$ must be greater than one, indicating an increasing population. The habitat features of listed fall chinook salmon that the proposed action may affect include substrate, water quality, cover/shelter, food (juvenile only), and riparian vegetation.

Preliminary conclusions by NOAA Fisheries (2003) suggest both the long-term and short-term trends in natural returns are positive (1.013, 1.188). The short-term estimates (1990-2000) of the median population growth rate lambda ($\lambda$) are 0.98 with a hatchery spawning effectiveness of 1.0 (equivalent to that of wild spawners) and 1.137 with a hatchery spawning effectiveness of 0. The estimated long-term growth rate for the Snake River fall chinook population is strongly influenced by the hatchery effectiveness assumption. If hatchery spawners have been equally as effective as natural-origin spawners in contributing to brood year returns, the long-term $\lambda$ estimate is 0.899 and the associated probability that $\lambda$ is less than 1.0 is estimated as 98.7%. If hatchery returns over Lower Granite Dam are not contributing at all to natural production, the long-term estimate of $\lambda$ is 1.024. The associated probability that $\lambda$ is greater than 1.0 is 25.7%, under the assumption that hatchery effectiveness is 0.

## 2.3 Environmental Baseline

The 'environmental baseline' includes the past and present impacts of all Federal, state, or private actions and other human activities in the action area, the anticipated impacts of all

proposed Federal projects in the action area that have already undergone formal or early section 7 consultation, and the impact of state or private actions which are contemporaneous with the consultation in process (50 CFR 402.02). For projects that are ongoing actions, the effects of future actions over which the Federal agency has discretionary involvement or control will be analyzed as 'effects of the action.'

NOAA Fisheries describes the environmental baseline in terms of the biological requirements for habitat features and processes necessary to support life stages of the subject ESUs within the action area. When the environmental baseline departs from those biological requirements, the adverse effects of a proposed action on the ESU or its habitat are more likely to jeopardize the listed species or result in destruction or adverse modification of critical habitat (NMFS 1999b).

The biological requirements of salmon and steelhead in the action area vary depending on the life history stage present and the natural range of variation present within that system (Groot and Margolis 1991, NRC 1996, Spence et al. 1996). Generally, during spawning migrations, adult salmon require clean water with cool temperatures and access to thermal refugia, dissolved oxygen near 100% saturation, low turbidity, adequate flows and depths to allow passage over barriers to reach spawning sites, and sufficient holding and resting sites. Anadromous fish select spawning areas based on species-specific requirements of flow, water quality, substrate size, and groundwater upwelling. Embryo survival and fry emergence depend on substrate conditions (e.g., gravel size, porosity, permeability, and oxygen concentrations), substrate stability during high flows, and, for most species, water temperatures of 13˚C or less. Habitat requirements for juvenile rearing include seasonally suitable microhabitats for holding, feeding, and resting. Migration of juveniles to rearing areas, whether the ocean, lakes, or other stream reaches, requires unobstructed access to these habitats. Physical, chemical, and thermal conditions may all impede migrations of adult or juvenile fish.

In general, the environment for listed species in the CRB, including those that migrate past or spawn upstream from the action area, has been dramatically affected by the development and operation of the Federal Columbia River Power System (FCRPS). Storage dams have eliminated mainstem spawning and rearing habitat, and have altered the natural flow regime of the Snake and Columbia Rivers, decreasing spring and summer flows, increasing fall and winter flow, and altering natural thermal patterns. Power operations cause fluctuation in flow levels and river elevations, affecting fish movement through reservoirs, disturbing riparian areas and possibly stranding fish in shallow areas as flows recede. The eight dams in the migration corridor of the Snake and Columbia Rivers kill or injure a portion of the smolts passing through the area. The low velocity movement of water through the reservoirs behind the dams slows the smolts' journey to the ocean and enhances the survival of predatory fish (Independent Scientific Group 1996, NRC 1996). Formerly complex mainstem habitats in the Columbia and Snake Rivers have been reduced, for the most part, to single channels, with floodplains reduced in size, and off-channel habitats eliminated or disconnected from the main channel (Sedell and Froggatt 1984;

Independent Scientific Group 1996; and Coutant 1999). The amount of large woody debris in these rivers has declined, reducing habitat complexity and altering the rivers' food webs (Maser and Sedell 1994).

Other human activities that have degraded aquatic habitats or affected native fish populations in the CRB include stream channelization, elimination of wetlands, construction of flood control dams and levees, construction of roads (many with impassable culverts), timber harvest, splash dams, mining, water withdrawals, unscreened water diversions, agriculture, livestock grazing, urbanization, outdoor recreation, fire exclusion/suppression, artificial fish propagation, fish harvest, and introduction of non-native species (Henjum *et al.* 1994; Rhodes *et al.* 1994; NRC 1996; Spence *et al.* 1996; and Lee *et al.* 1997). In many watersheds, land management and development activities have: (1) Reduced connectivity (i.e., the flow of energy, organisms, and materials) between streams, riparian areas, floodplains, and uplands; (2) elevated fine sediment yields, degrading spawning and rearing habitat; (3) reduced large woody material that traps sediment, stabilizes streambanks, and helps form pools; (4) reduced vegetative canopy that minimizes solar heating of streams; (5) caused streams to become straighter, wider, and shallower, thereby reducing rearing habitat and increasing water temperature fluctuations; (6) altered peak flow volume and timing, leading to channel changes and potentially altering fish migration behavior; and (7) altered floodplain function, water tables and base flows (Henjum *et al.* 1994; McIntosh *et al.* 1994; Rhodes *et al.* 1994; Wissmar *et al.* 1994; NRC 1996; Spence *et al.* 1996; and Lee *et al.* 1997).

The Lower Salmon River subbasin includes the Salmon River from its mouth to French Creek (RM 104.8). This reach of the Salmon River is characterized by a steep rocky canyon where the channel alternates between large pools and boulder dominated rapids with a gradient of approximately 0.23%. The subbasin includes a total of 793,600 acres. Private lands comprise the majority of the subbasin, followed by the USDA Forest Service (USFS), BLM, Idaho Department of Fish and Game, and Idaho Department of Lands. Elevations within the subbasin range from 916 feet at the mouth to over 8,000 feet at the Seven Devils Mountains. Private land uses include livestock grazing, timber harvest, recreation, agriculture, communities, and residences. Historically, mining was a major land use along the Salmon River and in the Florence area. Land uses on public lands include timber harvest, livestock grazing, roads, mining, and recreation. The BLM conducted wetland and riparian restoration on the project site terrace during 2002 that was associated with a pond rehabilitation and tree and shrub plantings.

Water quality in the Lower Salmon River is generally good, with low concentrations of pollutants. However, summer water temperatures in portions of the subbasin are elevated above those that might naturally occur, and sometimes well above the lethal limit for salmon and steelhead. Temperatures recorded at the United States Geological Survey, White Bird stream gage in the Salmon River ranged from 16.5° C to 28.0° C during July from 1976 to 1991. A

combination of erodible soils, natural fires, periodic intense climatic events, and development of road systems have resulted in substantial natural and unnatural erosion and delivery of sediment to the Salmon River.

Many tributaries to the Salmon River have elevated fine sediment deposits; however, observations of the riverbed do not indicate that fine sediment deposits are a serious problem in the mainstem. The riverbed is largely composed of cobble and boulder material which offers abundant cover for salmonids. Although interstitial deposition of fines is evident, certain habitats such as pool tailouts, appear to be relatively free of fine sediments. During a 1993 survey at RM 65.7, the BLM estimated cobble embeddedness in the Salmon River at 26.3% and surface fines (particle size less than 6.3mm) at 4.4%. During a 1994 survey at RM 90.8, the BLM estimated cobble embeddedness at 39.5% and spawning gravels at 19.5% fines. These two surveys reveal varying conditions ranging from low to moderately high impacts to rearing habitat.

Pacific salmon populations also are substantially affected by variation in the freshwater and marine environments. Ocean conditions are a key factor in the productivity of Pacific salmon populations. Stochastic events in fresh water (flooding, drought, snowpack conditions, volcanic eruptions, etc.) can play an important role in a species' survival and recovery, but those effects tend to be localized compared to the effects associated with the ocean. The survival and recovery of these species depends on their ability to persist through periods of low natural survival due to ocean conditions, climatic conditions, and other conditions outside the action area. Freshwater survival is particularly important during these periods because enough smolts must be produced so that a sufficient number of adults can survive to complete their oceanic migration, return to spawn, and perpetuate the species. Therefore it is important to maintain or restore properly functioning condition (PFC) in order to sustain the ESU through these periods. Additional details about the importance of freshwater survival to Pacific salmon populations can be found in Federal Caucus (2000), NMFS (2000), and Oregon Progress Board (2000).

Biological requirements are population characteristics necessary for the listed ESU to survive and recover to naturally reproducing population sizes at which protection under the ESA would become unnecessary. The listed species' biological requirements may be described as characteristics of the habitat, population or both (McElhany *et al.* 2000). Interim recovery numbers for the Snake River fall chinook ESU are 2,500 adult spawners (NOAA Fisheries 2002). A discussion of listed fall chinook salmon general life history is provided in National Marine Fisheries Service (NMFS 2001), available on the NOAA Fisheries website *(http://www.nwr.noaa.gov/1habcon/habweb/habguide/biotemplate_app_b.pdf)*.

The biological requirements of the listed species are not being met under the environmental baseline. Conditions in the action area would have to improve, and any further degradation of the baseline, or delay in improvement of these conditions would probably further decrease the

likelihood of survival and recovery of the listed species under the environmental baseline. Elevated summer temperatures and cobble embeddedness in the Salmon River may be a limiting factor to survival of Snake River fall chinook salmon.

The Snake River fall chinook salmon ESU considered in this Opinion resides in and migrates through the action area. Thus, for this action area, the biological requirements for this ESU are the habitat characteristics that would support successful adult spawning, egg incubation, and juvenile rearing that would be affected by this consultation.

## 2.4 Analysis of Effects of the Action

'Effects of the action' means the direct and indirect effects of an action on the species or critical habitat, together with the effects of other activities that are interrelated or interdependent with that action, that will be added to the environmental baseline (50 CFR 402.02). If the proposed action includes offsite measures to reduce net adverse impacts by improving habitat conditions and survival, NOAA Fisheries will evaluate the net combined effects of the proposed action and the offsite measures.

'Indirect effects' are those that are caused by the proposed action and are later in time, but still are reasonably certain to occur (50 CFR 402.02). Indirect effects may occur outside the area directly affected by the action, and may include other Federal actions that have not undergone section 7 consultation but will result from the action under consideration. To be considered indirect effects, such actions must be reasonably certain to occur, as evidenced by appropriations, work plans, permits issued, or budgeting; follow a pattern of activity undertaken by the agency in the action area; or be a logical extension of the proposed action.

'Interrelated actions' are those that are part of a larger action and depend on the larger action for their justification; 'interdependent actions' are those that have no independent utility apart from the action under consideration (50 CFR 402.02). Future Federal actions that are not a direct effect of the action under consideration, and not included in the environmental baseline or treated as indirect effects, are not considered in this Opinion.

### 2.4.1 Species Effects

The effect that a proposed action has on particular essential features or Matrix of Pathways and Indicators (MPI) pathways can be translated into a likely effect on population growth rate. However, in the case of this consultation it is not possible to quantify an incremental change in survival for Snake River fall chinook salmon.

Increased boating and fishing activities may cause impacts on listed salmonids and aquatic habitat. Engine noise, propeller and jet-wash water, and the physical presence of boat hulls may disturb or displace nearby fishes (Mueller 1980; Warrington 1999a). Boat traffic may also cause increased turbidity in shallow waters, uprooting of aquatic macrophytes, aquatic pollution (through exhaust, fuel spills, or release of petroleum lubricants), shoreline erosion (Warrington 1999b) and disturbance to spawning fall chinook or shallow water redds (USDI-BLM 2004). These boating impacts indirectly affect listed fish in a number of ways. Turbidity may injure or stress affected fishes. The loss of aquatic macrophytes may expose salmonids to predation, decrease littoral productivity, or alter local species assemblages and trophic interactions. Despite a general lack of data specifically for salmonids, pollution from boats may cause short-term injury, physiological stress, decreased reproductive success, or death for fish in general. Pollution may also impact listed fish by impacts to potential prey species or aquatic vegetation. Passage of jet boats in shallow water areas has the potential to kill salmon eggs by pressure fluctuations resulting in rupturing the yolks by physical shock and impact when the egg is moved through the gravel by water flow.

The BLM concluded that the recreation site is expected to experience significant use; however, increased human use and recreational fishing in the Salmon River is not expected to increase the overall risk of "take" of listed species. Because of the large size of the river and deep pools, adult fall chinook can readily move to deeper waters to avoid disturbance associated with shallow water areas. The BLM will also continue fall chinook redd surveys and protection of shallow water redds. If a shallow water redd is observed in close proximity to an area used by boats or wading, such area may have restricted access or could be closed to fishing. Additionally, the proposed recreation site is not adjacent to any key spawning and rearing areas for listed fish.

### 2.4.2 Habitat Effects

The Lucile Recreation Project BA provides an analysis of the effects of the proposed action on Snake River fall chinook and their critical habitat in the action area. The analysis uses the MPI and procedures in NMFS (1996), the information in the BA, and the best scientific and commercial data available to evaluate elements of the proposed action that have the potential to affect listed fall chinook salmon or essential features of their critical habitat. The essential features of critical habitat include adequate: (1) Substrate, (2) water quality, (3) water quantity, (4) water temperature, (5) water velocity, (6) cover/shelter, (7) food, (8) riparian vegetation, (9) space, and (10) safe passage conditions (citations in Table 1).

2.4.2.1 *Effects of Sediment and Toxic Chemical Transport*

The BLM proposes to reconstruct an access road, construct two parking areas and a boat ramp and drying pad, install vault toilets, water facilities, and a kiosk. In order to construct these facilities, the BLM needs to level and grade 4 acres of RCHA alongside the Salmon River. These ground disturbing activities have the potential to affect fish habitat through increases in erosion and sediment delivery rates. Juvenile salmonid avoidance of turbid waters may be one of the most important effects of suspended sediments (DeVore *et al.* 1980, Birtwell *et al.* 1984, Scannell 1988). Salmonids have been observed to move laterally and downstream to avoid turbid plumes (McLeay *et al.* 1987, McLeay *et al.* 1984, Sigler *et al.* 1984, Lloyd 1987, Scannell 1988, Servizi and Martens 1991). Juvenile salmonids tend to avoid streams that are chronically turbid, such as glacial streams or those disturbed by human activities, except when the fish need to traverse these streams along migration routes (Lloyd *et al.* 1987). Adult and larger juvenile salmonids appear to be little affected by the high concentrations of suspended sediments that occur during storm and snowmelt runoff episodes (Bjornn and Reiser 1991). However, research indicates that chronic exposure can cause physiological stress responses that can increase maintenance energy and reduce feeding and growth (Redding *et al.* 1987, Lloyd 1987, Servizi and Martens 1991). Excessive fine sediment can effectively smother incubating eggs (Vaux 1968), thereby restricting movement of water through a redd (Bjornn and Reiser 1991) and reducing oxygen supply to developing embryos and the removal of their metabolic wastes (Fu-Chun 2000).

Fish habitat can also be affected by runoff of toxic chemicals from proposed access roads, parking lots, and spills or leaks from machinery. Fuel and lubricants could injure or kill fish and other aquatic organisms. Asphalting and/or graveling of parking lots and roads have the potential to indefinitely transmit contaminants to waterbodies, if a hydrologic connection (*e.g.* ditch) exists. Petroleum-based contaminants, such as fuel, oil, and some hydraulic fluids, contain polycyclic aromatic hydrocarbons (PAHs) which can cause acute toxicity to salmonids at high levels of exposure and can also cause chronic lethal as well as acute and chronic sublethal effects to aquatic organisms (Neff 1985).

The BLM concluded that negligible effects from erosion and sediment are expected to occur from ground disturbing actions. During the construction phase of the project, erosion and sediment control measures will be used to prevent runoff from reaching the river. The control measures will include sediment fences, straw bales, sediment traps, mulching, and seeding. During heavy precipitation events when runoff and construction would have the potential to cause adverse effects from erosion and sediment, all construction activity would be curtailed. The BLM will use natural topography, retention basins, and vegetation buffers to prevent direct runoff from the parking lots and the access road into the Salmon River. Infiltration and vegetation Best Management Practices (BMPs) are designed to facilitate the percolation of runoff through the soil, and thereby, result in reduced storm water quantity and reduced

mobilization of pollutants. To further reduce sediment delivery, the boat ramp and drying pad will be constructed during low-water periods when the riverbank area is out of the water. Few, if any, juvenile fall chinook salmon are expected to be present in the vicinity of the site during construction activities because of warm water temperatures in the fall and lack of other suitable habitat. Out-migration of smolts will have already occurred.

The potential for pollutants to enter the river from the proposed action will also be minimized by staging fuels and equipment in approved areas, by having a spill containment plan, and by having spill-control materials on site. All refueling and maintenance of machinery will occur at a minimum of 100 feet from the Salmon River in an area where topography would restrict drainage from flowing into the river. Because of the flow and large size of the river, any increase in contaminants resulting from increased recreational use is not expected to result in detectable levels. Closing off areas to prevent vehicle access is expected to reduce the potential for chemical contamination from automobiles, and installation of the vault toilet should reduce the potential for introduction of human waste to the river.

#### 2.4.2.2 *Effects to Riparian and Aquatic Habitat*

In the Lucile Recreation Project, the BLM will construct a boat ramp and drying pad that will affect approximately 0.1 acres of riparian and aquatic habitat. The length of near-shore river habitat (coyote willows) totals 70 feet that will be covered by concrete slabs for the boat ramp and staging area. Additionally, the BLM expects that riparian habitat up to 50 feet upriver and 50 feet downriver of the boat ramp and staging area will be impacted by heavy recreational use at the launch area.

Riparian buffer strips help to maintain hydrologic, hydraulic, and ecological integrity of a stream channel and aid in trapping sediments, nutrients, and chemicals before reaching nearby waterbodies (Belt et al. 1992). Near-shore coyote willow sites below the mean high water mark along the Salmon River provide critical subyearling rearing habitat for fall chinook salmon. Water velocity in these areas is reduced, which provides cover, security, and feeding for these fish. Cover also allows fish to occupy areas of streams that they might not use otherwise (Bjornn and Rieser 1991). Brusven et al. (1986) found that 82% of age-0 chinook salmon preferred sections of streams with one-third overhead cover to sections without overhead cover.

The BLM noted that the effects to riparian and aquatic habitat from the proposed action will be negligible and will not retard recovery and attainment of Riparian Management Objectives or result in significant degradation of these habitats. All areas disturbed by construction activities, except those either paved, graveled, or covered by cement, will be planted with native vegetation. As the vegetation matures, it will contribute to the improvement of habitat functions. The proposed action will have no potential to adversely affect water temperature because the

associated riparian areas contribute negligible amounts of shade and no trees will be removed from the site. Post project monitoring of recreation use and effects to riverbanks and riparian vegetation will be conducted by the BLM. If monitoring documents adverse effects to riparian vegetation or bank stability, the necessary actions will be taken to reduce adverse impacts. Construction activities will occur within the Salmon River RHCA; however, the project complies with PACFISH (USDI-BLM-USDA 1995) standards and guidelines, which requires either a watershed analysis (Environmental Assessment at the Watershed Scale), or a site-specific analysis prior to construction of new recreation facilities in RHCAs. A site-specific analysis was conducted by the BLM and incorporated into their BA (USDI-BLM 2004).

An incremental change in the conservation value of critical habitat within the action area due to the proposed action cannot be quantified. However, based on the effects described above, it is reasonably likely that the proposed action will have a small, local reduction in that conservation value.

### 2.4.3 Cumulative Effects

'Cumulative effects' are those effects of future state or private activities, not involving Federal activities, that are reasonably certain to occur within the action area of the Federal action subject to consultation (50 CFR 402.02). Cumulative effects that reduce the capacity of listed ESUs to meet their biological requirements in the action area increase the risk to the ESU that the effects of the proposed action on the ESU or its habitat will result in jeopardy (NMFS 1999b).

The Lower Salmon River subbasin has a moderate to high risk for combined effects of activities occurring on private and state lands. A large variety of actions within the analysis area may affect listed species and habitat, and include increased development, residences, roads, highways, timber harvest, livestock grazing, and recreation use. Summer float boating and steelhead/salmon fishing have resulted in increased levels of river-based recreation for the Lower Salmon River.

The Idaho Department of Environmental Quality will establish Total Maximum Daily Loads (TMDLs) in the Snake River basin, a program regarded as having positive water quality effects. The TMDLs are required by court order, so it is reasonably certain that they will be set. The State of Idaho has created an Office of Species Conservation to work on subbasin planning and to coordinate the efforts of all state offices addressing natural resource issues. Demands for Idaho's groundwater resources have caused groundwater levels to drop and reduced flow in springs for which there are senior water rights. The Idaho Department of Water Resources has begun studies and promulgated rules that address water right conflicts and demands on a limited resource. The studies have identified aquifer recharge as a mitigation measure with the potential to affect the quantity of water in certain streams, particularly those essential to listed species.

Between 1990 and 2000, the population of Idaho County, Idaho, decreased by 0.6% .[4] Even though the population has decreased slightly, the pressure on resource extraction, recreational tourism, hunting and fishing interests, and human development continues to be high; thus, NOAA Fisheries assumes that future private and state actions will continue within the action area. As the human population in the action area continues to function, the demand for agricultural, commercial, or residential development is likely to grow. The effects of new development are likely to further reduce the conservation value of habitat within the action area.

Although quantifying an incremental change in survival for fall chinook salmon considered in this consultation due to the cumulative effects is not possible, it is reasonably likely that those effects within the action area will have a low to moderate, long-term, negative effect on the likelihood of their survival and recovery.

## 2.5 Conclusions

After reviewing the best available scientific and commercial information regarding the biological requirements and the status of the Snake River fall chinook salmon considered in this Opinion, the environmental baseline for the action area, the effects of the proposed action, and the cumulative effects, NOAA Fisheries' concludes that the action, as proposed, is not likely to jeopardize the continued existence of these species, and is not likely to destroy or adversely modify critical habitat.

The proposed action is not likely to jeopardize fall chinook salmon based on the following: (1) The BLM will continue to conduct redd count surveys and will protect any shallow water proposed action redds if found near the development area; (2) the proposed recreation site is not adjacent to any key spawning and rearing areas for listed fish; and (3) because of the large size of the Salmon River and deep pools, adult fall chinook can readily move to deeper waters to avoid disturbance associated with shallow water areas.

The proposed action is not likely to appreciably reduce the functioning of already impaired habitat, and not likely to retard the long-term progress of impaired habitat toward PFC essential to long-term survival and recovery at the population or ESU scale. These conclusions are based on the following: (1) Effects to fish habitat from erosion and sediment is expected to be negligible; (2) natural topography, retention basins, and vegetation buffers will prevent direct runoff of pollutants from the proposed road and parking lots into the Salmon River; (3) construction of the boat ramp and drying pad will take place when the riverbank area is out of the water during low flow and low water conditions; (4) loss of riparian habitat and associated

[4] U.S. Census Bureau, State and County Quickfacts, Idaho County, Idaho. Available at http://quickfacts.census.gov/qfd/

coyote willows should have minimal effects on juvenile rearing habitat when considering the small size (170 feet) of area impacted; and (5) areas revegetated should help improve riparian function at the site.

## 2.6 Conservation Recommendations

Section 7 (a)(1) of the ESA directs Federal agencies to use their authorities to further the purposes of the ESA by carrying out conservation programs for the benefit of the threatened and endangered species. The following recommendations are discretionary measures that NOAA Fisheries believes are consistent with this obligation and therefore should be carried out by the BLM:

1. The BLM should minimize development and other land uses that significantly impact anadromous fish species or their habitat in the Lower Salmon River subbasin.

2. The BLM should restore degraded habitats when compatible with other resource objectives.

Please notify NOAA Fisheries if the BLM carries out any of these recommendations so that we will be kept informed of actions that minimize or avoid adverse effects, and those that benefit species or their habitats.

## 2.7 Reinitiation of Consultation

Reinitiation of formal consultation is required and shall be requested by the Federal agency or by the Service, where discretionary Federal involvement or control over the action has been retained or is authorized by law and: (a) If the amount or extent of taking specified in the incidental take statement is exceeded; (b) If new information reveals effects of the action that may affect listed species or critical habitat in a manner or to an extent not previously considered; ©) If the identified action is subsequently modified in a manner that has an effect to the listed species or critical habitat that was not considered in the biological opinion; or (d) If a new species is listed or critical habitat designated that may be affected by the identified action (50 CFR 402.16).

## 2.8 Incidental Take Statement

Section 9(a)(1) and protective regulations adopted pursuant to section 4(d) of the ESA prohibit the taking of listed species without a specific permit or exemption. Among other things, an action that harasses, wounds, or kills an individual of a listed species or harms a species by

altering habitat in a way that significantly impairs its essential behavioral patterns is a taking (50 CFR 222.102). Incidental take refers to takings that result from, but are not the purpose of, carrying out an otherwise lawful activity conducted by the Federal agency or applicant (50 CFR 402.02). Section 7(o)(2) exempts any taking that meets the terms and conditions of a written incidental take statement from the taking prohibition.

### 2.8.1 Amount or Extent of Take

NOAA Fisheries expects incidental take to occur as a result of the proposed actions that will harm, injure or kill Snake River fall chinook salmon. Although NOAA Fisheries expects the habitat-related effects of these actions to cause some level of incidental take within the action area, this take cannot be accurately quantified as a number of fish taken. In such circumstances, NOAA Fisheries provides a habitat surrogate to quantify the extent of incidental take.

The proposed action is reasonably certain to result in incidental non-lethal take of the listed species. NOAA Fisheries is reasonably certain the incidental take described here will occur because: (1) Snake River fall chinook salmon are known to occur in the action area; and (2) the proposed action is likely to cause impacts to critical habitat significant enough to impair feeding, breeding, migrating, or sheltering for the listed species. Despite the use of the best scientific and commercial data available, NOAA Fisheries cannot quantify a specific amount of incidental take of individual fish or incubating eggs for this action. Instead, the extent of non-lethal take authorized is anticipated to be the extent of the proposed action area that is covered by the following: (1) the 70-foot riparian area covered by cement for the ramp and staging area, (2) the 50-foot riparian area on either side of the ramp and staging area during construction activities and during future recreational use, and (3) an area 50-foot upstream and 300-foot downstream of the ramp and staging area for a visible sediment plume in the Salmon River during construction activities. The authorized take includes only take caused by the proposed action within the action area as defined in this Opinion.

### 2.8.2 Reasonable and Prudent Measures

Reasonable and prudent measures are non-discretionary measures to avoid or minimize take that must be carried out by cooperators for the exemption in section 7(o)(2) to apply. The BLM has the continuing duty to regulate the activities covered in this incidental take statement where discretionary Federal involvement or control over the action has been retained or is authorized by law. The protective coverage of section 7(o)(2) may lapse if the BLM fails to exercise its discretion to require adherence to terms and conditions of the incidental take statement, or to exercise that discretion as necessary to retain the oversight to ensure compliance with these terms and conditions. Similarly, if any applicant fails to act in accordance with the terms and

conditions of the incidental take statement, protective coverage may lapse. The following reasonable and prudent measures are necessary and appropriate to minimize the impact on listed species of incidental taking caused by the proposed action.

The BLM shall:

1. Conduct a monitoring and reporting program to confirm the proposed action is implemented as described and to verify that the amount of take authorized in this Opinion is not exceeded.

2. Minimize the impact of incidental take from general construction activities.

3. Minimize the impact of incidental take resulting from fuels or toxic chemical pollution.

### 2.8.3 Terms and Conditions

To be exempt from the prohibitions of section 9 of the ESA, the BLM and its cooperators must comply with the following terms and conditions, that implement the reasonable and prudent measures described above. Partial compliance with these terms and conditions may invalidate this take exemption or lead NOAA Fisheries to a different conclusion regarding whether the proposed action will result in jeopardy or the destruction or adverse modification of critical habitats. These Terms and Conditions are non-discretionary.

1. To implement RPM 1 (monitoring), above, the BLM shall:

    a. Report to NOAA Fisheries:

        (1) Compliance with the Incidental Take Statement and the Terms and Conditions.

        (2) Remedies to address and resolve problems identified in 1a(1), above.

        (3) Any environmental effects of the action that were not considered in the BA or this Opinion.

    b. Monitor implementation and effectiveness to evaluate the following:

        (1) All mitigation measures, as outlined in the BA, are performed as described.

(2) Document if adverse recreation-related impacts to soils and vegetation, or riparian areas or water quality are occurring. If monitoring identifies adverse effects to riparian vegetation or bank stability and/or active erosion and sediment occurring from such use, take corrective measures necessary to reduce adverse impacts.

c. Establish and monitor permanent photo points to assess impacts to key areas for a minimum of 5 years, or more if conditions indicate. Key areas to be monitored will include all riparian vegetation, the small stream flowing through the terrace, and the wetland and riparian restoration project.

d. Continue fall chinook redd surveys. If shallow water fall chinook redds may potentially be impacted by recreation use, restrict shore access or boat use within 50 feet of a redd within the project area.

e. Submit all monitoring reports by March 15, annually, to: NOAA Fisheries, North Idaho Branch Office, 102 North College, Grangeville, Idaho 83530.

2. To implement RPM 2 (general construction activities), above, the BLM shall:

a. Include all Terms and Conditions in any permit, grant, or contract issued for the implementation of the action described in this Opinion.

b. Require operators of construction equipment and/or construction personnel to immediately cease operation if a sick, injured, or dead specimen of a threatened or endangered species is found as a result of the proposed action. The finder must

notify the Vancouver Field Office of NOAA Fisheries Law Enforcement at (360) 418-4246. The finder must take care in handling sick or injured specimens to ensure effective treatment, and in handling dead specimens to preserve biological material in the best possible condition for later analysis of cause of death. The finder also has the responsibility to carry out instructions provided by Law Enforcement to ensure that evidence intrinsic to the specimen is not disturbed unnecessarily.

c. Cease project operations under high flow conditions that may result in inundation of the project area during construction of boat ramp and adjacent boat drying pad, or during high precipitation events that would cause sediment problems that would exceed the amounts in the Incidental Take Statement.

d. Install erosion control measures prior to ground-distubing construction activities. Erosion and sediment control measures may include such activities as mulching, seeding, straw bales, and constructing sediment traps and fences.

e. Route runoff from roads and parking lots toward retention basins and swales to prevent direct runoff to the Salmon River and use vegetation buffers to improve percolation of runoff through the soil.

f. Initiate seeding, fertilizing, and mulching to establish desirable plant species in disturbed areas immediately following completion of the project or during the first favorable growing season.

g. Use the informational kiosk, or other appropriate sign, to inform fishermen that no legal fishing season is authorized for listed species and to provide fish identification information (e.g., hatchery/wild fish identification).

h. Adhere to standards and guidelines established in the Programmatic Biological Assessment of Developed Recreation Site Maintenance (USDI-BLM 1999).

I. Adhere to area-wide programmatic guidelines during noxious weed control and use only ground-based application. All weed control actions will be under the direct supervision of the BLM.

3. To implement RPM 3 (fuel or toxic chemical pollution), above, the BLM shall:

a. Clean equipment and repair any leaks prior to arriving at the project site. Inspect equipment daily for leaks or accumulations of grease, and fix any identified problems before entering areas that drain directly to live water.

b. Prepare and implement a Spill Prevention Control and Counter Measures Plan (40 CFR 112), prior to fuel hauling.

c. Allow no fueling, fuel storage, or maintenance of equipment within 100 feet of the Salmon River. If over 150 gallons of fuel is stored within the RHCA, it will be stored in a lined contained structure that will be large enough to contain 150% of the stored volume.

d. Keep an emergency spill containment kit on site during construction activities. On-site personnel will be knowledgeable and trained in the use of the spill containment equipment.

e. Notify NOAA Fisheries as soon as possible of any fuel spill of 1 gallon or more.

# 3. MAGNUSON-STEVENS FISHERY CONSERVATION AND MANAGEMENT ACT

## 3.1 Statutory Requirements

The consultation requirements of section 305(b) of the Magnuson-Stevens Fishery Conservation and Management Act (MSA) direct Federal agencies to consult with NOAA Fisheries on all actions, or proposed actions, that may adversely affect essential fish habitat (EFH). Adverse effects include the direct or indirect physical, chemical, or biological alterations of the waters or substrate and loss of, or injury to, benthic organisms, prey species and their habitat, and other ecosystem components, if such modifications reduce the quality or quantity of EFH. Adverse effects to EFH may result from actions occurring within EFH or outside EFH, and may include site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions (50 CFR 600.810). Section 305(b) also requires NOAA Fisheries to recommend measures that may be taken by the action agency to conserve EFH.

The Pacific Fishery Management Council (PFMC) designated EFH for groundfish (PFMC 1998a), coastal pelagic species (PFMC 1998b), and chinook salmon, coho salmon, and Puget Sound pink salmon (PFMC 1999). The proposed action and action area for this consultation are described in the Introduction to this document. The action area includes areas designated as EFH for various life-history stages of Snake River chinook salmon (PFMC 1999).

The proposed action and action area are detailed above in Sections 1.2 and 1.3 of this document. The action area includes habitats that have been designated as EFH for various life-history stages of listed Snake River chinook salmon.

## 3.2 Identification of EFH

Pursuant to the MSA the PFMC has designated EFH for three species of Federally-managed Pacific salmon: chinook (*Oncorhynchus tshawytscha*); coho (*O. kisutch*); and Puget Sound pink salmon (*O. gorbuscha*)(PFMC 1999). Freshwater EFH for Pacific salmon includes all those streams, lakes, ponds, wetlands, and other water bodies currently, or historically accessible to salmon in Washington, Oregon, Idaho, and California, except areas upstream of certain impassable man-made barriers (as identified by the PFMC 1999), and longstanding, naturally-impassable barriers (i.e., natural waterfalls in existence for several hundred years). Detailed descriptions and identifications of EFH for salmon are found in Appendix A to Amendment 14 to the Pacific Coast Salmon Plan (PFMC 1999). Assessment of potential adverse effects to these species' EFH from the proposed action is based, in part, on this information.

The EFH means those waters and substrate necessary to fish for spawning, breeding, feeding, or growth to maturity (MSA section 3). For the purpose of interpreting this definition of EFH: Waters include aquatic areas and their associated physical, chemical, and biological properties that are used by fish and may include aquatic areas historically used by fish where appropriate; substrate includes sediment, hard bottom, structures underlying the waters, and associated biological communities; necessary means the habitat required to support a sustainable fishery and the managed species' contribution to a healthy ecosystem; and "spawning, breeding, feeding, or growth to maturity" covers a species' full life cycle (50 CFR 600.10). Adverse effect means any
impact which reduces quality and/or quantity of EFH, and may include direct (*e.g.*, contamination or physical disruption), indirect (*e.g.*, loss of prey or reduction in species fecundity), site-specific or habitat-wide impacts, including individual, cumulative, or synergistic consequences of actions (50 CFR 600.810).

## 3.3 Effects of Proposed Action on EFH

The effects on Snake River chinook salmon EFH are as described in detail in Section 2.4 of this Opinion. The proposed action may result in short-term and long-term adverse effects on a variety of habitat parameters. These adverse effects are:

1. Sediment and toxic chemical transport resulting from construction activities and runoff from access road and parking lot surfaces.

2. Changes to riparian and aquatic habitat resulting from removal of riparian vegetation and structure during construction of the boat ramp and boat drying pad.

### 3.4 Conclusion

NOAA Fisheries concludes that the proposed action may adversely affect designated EFH for Snake River fall chinook salmon.

### 3.5 EFH Conservation Recommendations

NOAA Fisheries understands that the conservation measures described in the BA will be implemented by the BLM, and believes that those measures will reduce effects on EFH from sediment, toxic chemicals, and loss of riparian and aquatic habitat. Although those measures are not sufficient to fully address the remaining adverse effects to EFH, the specific Terms and Conditions outlined in Section 2.8.3 are generally applicable to designated EFH for Snake River chinook salmon, and do address these adverse effects.

1. Term and Condition 1 (monitoring) and its supporting points will identify project effects on erosion and sediment delivery, toxic chemical transport, riparian vegetation and function, and water quality.

2. Term and Condition 2 (general construction activities) and its supporting points will minimize project effects on riparian vegetation and water quality due to erosion and sediment delivery.

3. Term and Condition 3 (fuel and toxic chemical pollution) and its supporting points will minimize project effects on water quality due to toxic chemicals.

### 3.6 Statutory Response Requirement

Federal agencies are required to provide a detailed written response to NOAA Fisheries' EFH conservation recommendations within 30 days of receipt of these recommendations. The response must include a description of measures proposed to avoid, mitigate, or offset the adverse impacts of the activity on EFH. In the case of a response that is inconsistent with the EFH conservation recommendations, the response must explain the reasons for not following the recommendations, including the scientific justification for any disagreements over the anticipated effects of the proposed action and the measures needed to avoid, minimize, mitigate, or offset such effects.

### 3.7 Supplemental Consultation

The BLM must reinitiate EFH consultation with NOAA Fisheries if the proposed action is substantially revised in a manner that may adversely affect EFH, or if new information becomes available that affects the basis for NOAA Fisheries' EFH conservation recommendations (50 CFR 600.920(l)).

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